

# Rheumatology

INTERNATIONAL

## Clinical and Experimental Investigations

---

**Volume 5 1984/85**

### **Editorial Board**

B. Bresnihan, Dublin; E. G. L. Bywaters, Beaconsfield; K. Fehr, Zurich; J. R. Kalden, Erlangen;  
E.-M. Lemmel, Wildbad; K. D. Muirden, Melbourne; J. B. Natvig, Oslo; C. Steffen, Vienna;  
R. Winchester, New York; M. Ziff, Dallas, TX

### **Advisory Board**

D. Alarcón-Segovia, Mexico City; B. M. Ansell, Harrow; J. R. Batchelor, London;  
J. J. de Blécourt, Groningen; L. Bonomo, Bari; D. Brackertz, Hannover; T. D. V. Cooke, Kingston, Ontario;  
S. D. Deodhar, Chandigarh; J. P. Edmonds, Kogarah; T. E. W. Feltkamp, Amsterdam; J. Gergely, Göd;  
H. Greiling, Aachen; K. Hirohata, Kobe; E. J. Holborow, London; G. R. V. Hughes, London;  
M. F. Kahn, Paris; T. D. Kinsella, Calgary, Alberta; P.-H. Lambert, Geneva; R. N. Maini, London;  
E. Munthe, Oslo; D. G. Palmer, Dunedin; P. A. Revell, London; A. S. Russell, Edmonton, Alberta;  
J. Sany, Montpellier; L. C. Schulz, Hannover; J. D. Stobo, San Francisco, CA; N. Talal, San Antonio, TX;  
E. M. Tan, Denver, CO; R. Timpl, Martinsried; J. H. Vaughan, La Jolla, CA; B. Vernon-Roberts, Adelaide;  
T. L. Vischer, Geneva; O. Wegelius, Helsinki; R. C. Williams, Jr., Albuquerque, NM;  
J. B. Winfield, Chapel Hill, NC; M. Zembala, Cracow; N. J. Zvaifler, San Diego, CA



**Springer International**

## Copyright

Submission of a manuscript implies: that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review, or thesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all coauthors, if any, as well as by the responsible authorities at the institute where the work has been carried out; that, if and when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher; and that the manuscript will not be published elsewhere in any language without the consent of the copyright holders.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e.g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, video disks, etc., without first obtaining written permission from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

### *Special regulations for photocopies in the USA*

Photocopies may be made for personal or in-house use beyond the limitations stipulated under Section 107 or 108 of U.S. Copyright Law, provided a fee is paid. This fee is US \$ 0.20 per page, or a minimum of US \$ 1.00 if an article contains fewer than five pages. All fees should be paid to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0172-8172, the volume, and the first and last page numbers of each article copied. The copyright owner's consent does not include copying for general distribution, promotion, new works, or resale. In these cases, specific written permission must first be obtained from the publisher.

### *Other regulations*

Authors publishing in this journal can, under certain conditions, benefit from library and photocopy fees collected by VG WORT. Authors of German nationality and those resident in the Federal Republic of Germany or Berlin (West), as well as citizens of Austria, Switzerland and member countries of the European Community, may apply to Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestrasse 49, D-8000 München 2, for detailed information.

Springer-Verlag Berlin Heidelberg New York Tokyo  
Printed in Germany by Graphischer Betrieb Konrad Tritsch, D-8700 Würzburg  
© Springer-Verlag Berlin Heidelberg 1984/85  
Springer-Verlag GmbH & Co KG, D-1000 Berlin 33

---

**Springer-Verlag**  
Journal Production Dept. I  
Postfach 105 280  
D-6900 Heidelberg 1  
Telephone (0 62 21) 4 87-3 32  
Telex 461 723

**Springer-Verlag**  
Heidelberger Platz 3  
D-1000 Berlin 33  
Telephone (0 30) 82 07-1  
Telex 183 319

# Contents

Albert, J., see Lagier, R. . . . .	187	progressive systemic sclerosis, Raynaud syndrome, rheumatoid arthritis, and systemic lupus erythematosus . . . . .	259
Allander, E., see Manahan, L., et al. . . . .	149	Drosos, A.A., Constantopoulos, S.H., Moutsopoulos, H.M.: Tuberculous spondylitis: a cause for paraplegia in lupus . . . . .	185
Allen, J.B., see Lehman, T.J.A., et al. . . . .	163	Dührsen, U., see Kirch, W., et al. . . . .	239
Asherson, R.A., Mackworth-Young, C.G., Harris, E.N., Gharavi, A.E., Hughes, G.R.V.: Multiple venous and arterial thromboses associated with the lupus anticoagulant and antibodies to cardiolipin in the absence of SLE . . . . .	91	Elson, C.J., Carter, S.D., Scott, D.G.I., Bacon, P.A., Lowe, J.: A new assay for IgG rheumatoid factor activity and its use to analyse rheumatoid factor reactivity with human IgG isotypes . . . . .	175
Aufdemorte, T.B., see Sheridan, P.J., et al. . . . .	279	Fabiano, F., see Bedendo, A., et al. . . . .	29
Aufdermaur, M., see François, R.J., et al. . . . .	241	Farr, M., Brodrick, A., Bacon, P.A.: Plasma and synovial fluid concentrations of sulphasalazine and two of its metabolites in rheumatoid arthritis . . . . .	247
Bacon, P.A., see Elson, C.J., et al. . . . .	175	Fongi, E.G., see Catoggio, L.J. . . . .	141
Bacon, P.A., see Farr, M., et al. . . . .	247	Foster, S.L., see Pisko, E.J., et al. . . . .	155
Bacon, P.A., see Scott, D.L. . . . .	193	Fostropoulos, G.A., see Papasteriades, C.A., et al. . . . .	201
Barla, M.N., see Papasteriades, C.A., et al. . . . .	201	François, R.J., Bywaters, E.G.L., Aufdermaur, M.: Illustrated glossary for spinal anatomy. With explanations and a French and German translation . . . . .	241
Bedendo, A., Glorioso, S., Venturi Pasini, C., Fabiano, F., Casara, D., Cavallo, A., Todesco, S.: A family study of ankylosing spondylitis . . . . .	29	Fraser, J.R.E., see Hamilton, J.A., et al. . . . .	121
Bendtsen, K., Petersen, J., Halkjær-Kristensen, J., Ingemann-Hansen, T.: Interleukin-1-like activities in synovial fluids of patients with rheumatoid arthritis and traumatic synovitis . . . . .	79	Freemont, A.J., see Hopkins, S.J., et al. . . . .	21
Breedveld, F.C., Lafeber, G.J.M., Doekes, G., Claas, F.H.J., Cats, A.: Felty syndrome: autoimmune neutropenia or immune-complex-mediated disease? . . . . .	253	Fritzler, M.J., see Crawford, A.-M., et al. . . . .	283
Brodrick, A., see Farr, M., et al. . . . .	247	Gärtner, M., see Knobloch, C., et al. . . . .	133
Bywaters, E.G.L., see François, R.J., et al. . . . .	241	Gates, G.A., see Sheridan, P.J., et al. . . . .	279
Caragay, R., see Manahan, L., et al. . . . .	149	Gharavi, A.E., see Asherson, R.A., et al. . . . .	91
Carter, S.D., see Elson, C.J., et al. . . . .	175	Glorioso, S., see Bedendo, A., et al. . . . .	29
Carter, S.D., see Scott, D.L., et al. . . . .	49	Gramatzki, M., see Manger, B., et al. . . . .	95
Casara, D., see Bedendo, A., et al. . . . .	29	Graudal, H., see Jurik, A.G., et al. . . . .	15
Catoggio, L.J., Fongi, E.G.: Reflex sympathetic dystrophy and early damage of carpal bones . . . . .	141	Groenwold, J., see Swaak, A.J.G., et al. . . . .	215
Cats, A., see Breedveld, F.C., et al. . . . .	253	Hack, C.E., see Swaak, A.J.G., et al. . . . .	215
Cats, A., see Westedt, M.L., et al. . . . .	209	Hagen Petersen, S., see Manthorpe, R., et al. . . . .	191
Cavallo, A., see Bedendo, A., et al. . . . .	29	Halkjær-Kristensen, J., see Bendtsen, K., et al. . . . .	79
Chattopadhyay, D., Ravindran, B., Prakash, K.: Cryoglobulins in cases of rheumatoid arthritis . . . . .	181	Hamilton, J.A., Clarris, B.J., Fraser, J.R.E., Niall, M.C.: Peripheral blood mononuclear cells stimulate prostacyclin levels of human synovial fibroblast-like cells . . . . .	121
Claas, F.H.J., see Breedveld, F.C., et al. . . . .	253	Hamilton, J.A., see Clarris, B.J. . . . .	55
Clarris, B.J., Hamilton, J.A.: Peripheral blood mononuclear cells stimulate N-acetyl- $\beta$ -glucosaminidase levels of human synovial fibroblast-like cells . . . . .	55	Hannema, A., see Swaak, A.J.G., et al. . . . .	215
Clarris, B.J., see Hamilton, J.A., et al. . . . .	121	Harris, E.N., see Asherson, R.A., et al. . . . .	91
Constantopoulos, S.H., see Drosos, A.A., et al. . . . .	185	Heise, E., see Pisko, E.J., et al. . . . .	155
Coppock, J.S., see Scott, D.L., et al. . . . .	49	Herbrink, P., see Westedt, M.L., et al. . . . .	209
Crawford, A.-M., Rabin, H.R., Fritzler, M.J.: Hypertrophic pulmonary osteoarthropathy in cystic fibrosis . . . . .	283	Hermanns, W., see Schulz, L.-C., et al. . . . .	221
Davidson, D., see Jurik, A.G., et al. . . . .	15	Hirohata, K., see Ishikawa, H. . . . .	45
Dean, D.D., Sellers, A., Howell, D.S., Kerwar, S.S., Woessner, J.F. Jr.: Ascorbic acid stimulates the resorption of canine articular cartilage induced by a factor derived from activated rabbit macrophages . . . . .	103	Hoensch, H., see Kirch, W., et al. . . . .	239
Deicher, H., see Drenk, F., et al. . . . .	259	Holt, G.R., see Sheridan, P.J., et al. . . . .	279
Deicher, H., see Thien, M., et al. . . . .	127	Hopkins, S.J., Freemont, A.J., Jayson, M.I.V.: Pristane-induced arthritis in Balb/c mice. I. Clinical and histological features of the arthropathy . . . . .	21
Denecke, R., Kaup, F.-J., Meyer, M.: Intercellular network in articular cartilage of pigs with experimentally induced arthritis. I. Fact or artifact? . . . . .	265	Hotze, A., see Löw, A., et al. . . . .	69
Doekes, G., see Breedveld, F.C., et al. . . . .	253	Howell, D.S., see Dean, D.D., et al. . . . .	103
Dogterom, A.A., Huber-Bruning, O., Vernooij, J.E., Wilbrink, B., Otter, W. den, Huber, J.: Matrix depletion of young and old human articular cartilage by cultured autologous synovium fragments: a chondrocyte-independent effect . . . . .	169	Huber, J., see Dogterom, A.A., et al. . . . .	169
Dräger, R., see Knobloch, C., et al. . . . .	133	Huber-Bruning, O., see Dogterom, A.A., et al. . . . .	169
Drenk, F., Mensing, H., Serbin, A., Deicher, H.: Studies on endothelial cell cytotoxic activity in sera of patients with		Hughes, G.R.V., see Asherson, R.A., et al. . . . .	91
		Ingemann-Hansen, T., see Bendtsen, K., et al. . . . .	79
		Ishikawa, H., Hirohata, K.: Bilateral peroneal nerve palsy secondary to posterior dislocation of the proximal tibio-fibular joint in rheumatoid arthritis . . . . .	45
		Jayson, M.I.V., see Hopkins, S.J., et al. . . . .	21
		Jayson, M.I.V., see Summers, G.D., et al. . . . .	9
		Jurik, A.G., Davidson, D., Graudal, H.: Prevalence of cardiac and aortic enlargement in rheumatoid arthritis and its relationship to some characteristics of the patients. A radiological and clinical study . . . . .	15

Jurik, A.G., Möller, P.: Atrioventricular conduction time in rheumatoid arthritis . . . . .	205	Molenaar, J.L., see Westedt, M.L., et al. . . . .	209
Kalden, J.R., see Krauledat, P.B., et al. . . . .	97	Möller, P., see Jurik, A.G. . . . .	205
Kalden, J.R., see Löw, A., et al. . . . .	69	Moutsopoulos, H.M., see Drosos, A.A., et al. . . . .	185
Kalden, J.R., see Manger, B., et al. . . . .	95	Moutsopoulos, H.M., see Papasteriades, C.A., et al. . . . .	201
Kappou, I.D., see Papasteriades, C.A., et al. . . . .	201	Muirden, K.D., see Manahan, L., et al. . . . .	149
Kaup, F.-J., see Denecke, R., et al. . . . .	265	Mumford, P., Room, G.R.W., Venables, P.J.W., Maini, R.N.: IgG antibodies to SS-B(La), RNP/Sm and DNA are produced by PWM-stimulated normal human lymphocytes in culture . . . . .	109
Kerwar, S.S., see Dean, D.D., et al. . . . .	103	Nagasawa, T., see Nakabayashi, K., et al. . . . .	61
Kirch, W., Dührsen, U., Hoensch, H., Ohnhaus, E.: Cyclophosphamide-induced remission in Weber-Christian panniculitis . . . . .	239	Nakabayashi, K., Saito, M., Nagasawa, T., Takada, M.: Antibodies to rheumatoid arthritis nuclear antigen (RANA) in Japanese patients with rheumatoid arthritis . . . . .	61
Knobloch, C., Schlesier, M., Dräger, R., Gärtner, M., Peter, H.H.: Quantitative absorption of interleukin-2 by peripheral blood and synovial fluid lymphocytes from patients with rheumatoid arthritis . . . . .	133	Niall, M.C., see Hamilton, J.A., et al. . . . .	121
Kostner, G.M., see Ulreich, A., et al. . . . .	73	Nüßlein, H., see Manger, B., et al. . . . .	95
Krapf, F., see Löw, A., et al. . . . .	69	Ohnhaus, E., see Kirch, W., et al. . . . .	239
Krapf, F.E., see Krauledat, P.B., et al. . . . .	97	Otter, W. den, see Dogterom, A.A., et al. . . . .	169
Krauledat, P.B., Krapf, F.E., Manger, B., Kalden, J.R.: Evaluation of plasma C3d and immune complex determinations in the assessment of disease activity of patients with rheumatoid arthritis, systemic lupus erythematosus, and spondylitis ankylopoetica . . . . .	97	Panetti, M., see Pisko, E.J., et al. . . . .	155
Kuhn, C., see Mohr, W., et al. . . . .	273	Papasteriades, C.A., Kappou, I.D., Skopouli, F.N., Barla, M.N., Fostiropoulos, G.A., Moutsopoulos, H.M.: Lack of HLA-antigen association in Greek rheumatoid arthritis patients . . . . .	201
Lafeber, G.J.M., see Breedveld, F.C., et al. . . . .	253	Pataki, A., Rordorf-Adam, C.: Polyarthritis in MRL 1pr/1pr mice . . . . .	113
Lagier, R., Albert, J.: Bilateral deep infrapatellar bursitis associated with tibial tuberosity enthesopathy in a case of juvenile ankylosing spondylitis . . . . .	187	Pelster, B., see Mohr, W., et al. . . . .	39, 273
Langley, G.B., Sheppard, H.: The visual analogue scale: Its use in pain measurement . . . . .	145	Peña, M., see Schulz, L.-C., et al. . . . .	221
Lehman, T.J.A., Allen, J.B., Plotz, P.H., Wilder, R.L.: Bacterial cell wall composition, lysozyme resistance, and the induction of chronic arthritis in rats . . . . .	163	Peter, H.H., see Knobloch, C., et al. . . . .	133
Lindeman, J., see Westedt, M.L., et al. . . . .	209	Petersen, J., see Bendtzen, K., et al. . . . .	79
Löw, A., Hotze, A., Krapf, F., Schranz, W., Manger, B.J., Mahlstedt, J., Wolf, F., Kalden, J.R.: The nonspecific clearance function of the reticuloendothelial system in patients with immune complex mediated diseases before and after therapeutic plasmapheresis . . . . .	69	Pfeiffer, K.P., see Ulreich, A., et al. . . . .	73
Lowe, J., see Elson, C.J., et al. . . . .	175	Pichler, W.J., see Thien, M., et al. . . . .	127
Mackworth-Young, C.G., see Asherson, R.A., et al. . . . .	91	Pisko, E.J., Turner, R.A., Panetti, M., Foster, S.L., Heise, E.: Spontaneous and aggregated IgG induced rheumatoid factor producing cells in rheumatoid arthritis . . . . .	155
Mahlstedt, J., see Löw, A., et al. . . . .	69	Plotz, P.H., see Lehman, T.J.A., et al. . . . .	163
Maini, R.N., see Mumford, P., et al. . . . .	109	Prakash, K., see Chattopadhyay, D., et al. . . . .	181
Manahan, L., Caragay, R., Muirden, K.D., Allander, E., Valkenburg, H.A., Wigley, R.D.: Rheumatic pain in a Philippine village. A WHO-ILAR COPCORD study . . . . .	149	Prause, J.U., see Manthorpe, R., et al. . . . .	191
Manger, B., Gramatzki, M., Nüßlein, H., Kalden, J.R.: Coexistence of severe palmo-plantar Dupuytren's contracture, Raynaud's phenomenon and digital joint erosions . . . . .	95	Quintero, M., see Mitrovic, D.R., et al. . . . .	33, 83
Manger, B., see Krauledat, P.B., et al. . . . .	97	Rabin, H.R., see Crawford, A.-M., et al. . . . .	283
Manger, B.J., see Löw, A., et al. . . . .	69	Rainer, F., see Ulreich, A., et al. . . . .	73
Manthorpe, R., Hagen Petersen, S., Prause, J.U.: Reply . . . . .	191	Ravindran, B., see Chattopadhyay, D., et al. . . . .	181
Mapp, P.I., Revell, P.A.: Fibronectin production by synovial intimal cells . . . . .	229	Renger, D., see Thien, M., et al. . . . .	127
Maury, C.P.J.: Reactive (secondary) amyloidosis and its pathogenesis . . . . .	1	Revell, P.A., see Mapp, P.I. . . . .	229
McCredie, M., see Webb, J. . . . .	191	Robinson, M., see Scott, D.L., et al. . . . .	49
Mensing, H., see Drenk, F., et al. . . . .	259	Room, G.R.W., see Mumford, P., et al. . . . .	109
Meyer, M., see Denecke, R., et al. . . . .	265	Rordorf-Adam, C., see Pataki, A. . . . .	113
Mitrovic, D.R., Stankovic, A., Quintero, M., Ryckewaert, A.: Amyloid deposits in human knee and hip joints . . . . .	83	Ryckewaert, A., see Mitrovic, D.R., et al. . . . .	33, 83
Mitrovic, D.R., Uzan, M., Quintero, M., Ryckewaert, A.: Lipid peroxides in human articular cartilage . . . . .	33	Saito, M., see Nakabayashi, K., et al. . . . .	61
Mohr, W., Kuhn, C., Pelster, B., Wessinghage, D.: S-100 protein in normal, osteoarthrotic, and arthritic cartilage . . . . .	273	Schaening, U., see Schulz, L.-C., et al. . . . .	221
Mohr, W., Pelster, B., Wessinghage, D.: Polymorphonuclear granulocytes in rheumatic tissue destruction. VI. The occurrence of PMNs in menisci of patients with rheumatoid arthritis . . . . .	39	Schlesier, M., see Knobloch, C., et al. . . . .	133
		Schranz, W., see Löw, A., et al. . . . .	69
		Schulz, L.-C., Schaening, U., Peña, M., Hermanns, W.: Borderline-tissues as sites of antigen deposition and persistence - a unifying concept of rheumatoid inflammation? . . . . .	221
		Scott, D.G.I., see Elson, C.J., et al. . . . .	175
		Scott, D.L., Bacon, P.A.: Joint damage in rheumatoid arthritis: radiological assessments and the effects of anti-rheumatic drugs . . . . .	193
		Scott, D.L., Carter, S.D., Coppock, J.S., Robinson, M., Walton, K.W.: Differences between plasma and synovial fluid fibronectin . . . . .	49
		Sedlmayr, P., see Ulreich, A., et al. . . . .	73
		Sellers, A., see Dean, D.D., et al. . . . .	103
		Serbin, A., see Drenk, F., et al. . . . .	259
		Sheppard, H., see Langley, G.B. . . . .	145

Sheridan, P.J., Aufdemorte, T.B., Holt, G.R., Gates, G.A.: Cartilage of the baboon contains estrogen receptors. . . . .	279	Uzan, M., see Mitrovic, D.R., et al. . . . .	33
Skopouli, F.N., see Papasteriades, C.A., et al. . . . .	201	Valkenburg, H.A., see Manahan, L., et al. . . . .	149
Stankovic, A., see Mitrovic, D.R., et al. . . . .	83	Venables, P.J.W., see Mumford, P., et al. . . . .	109
Stijnen, T., see Westedt, M.L., et al. . . . .	209	Venturi Pasini, C., see Bedendo, A., et al. . . . .	29
Summers, G.D., Weiss, J.B., Jayson, M.I.V.: Failure of sera from patients with scleroderma to exhibit cytotoxicity to- wards human umbilical vein endothelial cells. . . . .	9	Verlaan, P., see Westedt, M.L., et al. . . . .	209
Swaak, A.J.G., Groenwold, J., Hannema, A., Hack, C.E.: Correlation of disease activity with circulating immune complexes (C <sub>1q</sub> bA) and complement breakdown products (C <sub>3b</sub> ) in patients with systemic lupus erythematosus. A prospective study. . . . .	215	Vernooy, J.E., see Dogterom, A.A., et al. . . . .	169
Takada, M., see Nakabayashi, K., et al. . . . .	61	Vries, E. de, see Westedt, M.L., et al. . . . .	209
Thien, M., Renger, D., Deicher, H., Pichler, W.J.: Alteration of Fc-receptor phenotype and proliferative capacity of Fc- IgG-receptor positive lymphocytes through interaction with soluble immune complexes of patients with SLE or RA . . . . .	127	Walton, K.W., see Scott, D.L., et al. . . . .	49
Todesco, S., see Bedendo, A., et al. . . . .	29	Webb, J., McCredie, M.: Comment on the paper 'Primary Sjögren's syndrome treated with Efamol/Efavir. A double- blind cross-over investigation' by R. Manthorpe, S. Hagen Petersen, J.U. Prause . . . . .	191
Turner, R.A., see Pisko, E.J., et al. . . . .	155	Weiss, J.B., see Summers, G.D., et al. . . . .	9
Ulreich, A., Kostner, G.M., Pfeiffer, K.P., Sedlmayr, P., Rainer, F.: Serum lipids and lipoproteins in patients with primary gout . . . . .	73	Wessinghage, D., see Mohr, W., et al. . . . .	39, 273
		Westedt, M.L., Herbrink, P., Molenaar, J.L., Vries, E. de, Verlaan, P., Stijnen, T., Cats, A., Lindeman, J.: Rheuma- toid factors in rheumatoid arthritis and vasculitis. . . . .	209
		Wigley, R.D., see Manahan, L., et al. . . . .	149
		Wilbrink, B., see Dogterom, A.A., et al. . . . .	169
		Wilder, R.L., see Lehman, T.J.A., et al. . . . .	163
		Woessner, J.F. Jr., see Dean, D.D., et al. . . . .	103
		Wolf, F., see Löw, A., et al. . . . .	69
		Indexed in Current Contents	